Report on the webinar "Current Challenges and Future Opportunities for the Use of Pharmaceuticals in the Stressed Space Environment" (28th March 2023)

Dr. K. Gowthamarajan, HoD, ***Organizing Chairperson***

The Department of Pharmaceutics has organized a webinar on "Current Challenges and Future Opportunities for the Use of Pharmaceuticals in the Stressed Space Environment" on March 28th 2023, through the zoom meeting platform. Dr. S. P Dhanabal, the Principal, welcomed the gathering. Dr. K Gowthamarajan, Professor and Head of the Department of Pharmaceutics, chaired the session and delivered the welcome address. Dr. M. R Jeyaprakash, Assistant Professor, Department of Pharmaceutical Analysis, introduced the resource persons. Dr. Jayakumar Venkatesan, Director (Human spaceflight Research) AATC, Poland & CEO, Harpy Aerospace, delivered the first lecture on "Introduction to Microgravity Research and Experiments." He focused on antisolvent crystallization, evaporation, melt/quench capabilities and the requirement in designing crystallization experiments in the space environment. He further explained his project on 3D bioprinting in space. Dr. Priti Mehta Professor and Head, Department of Pharmaceutical Analysis, Nirma, University, has delivered a second lecture on "Practical Difficulties and Designing the Stability of Medicine in a Space Environment." She explained the consequence of matters that affected the medicine and addressed the ICH Q1 stability guidelines at the terrestrial. She also emphasized that drug stability refers to the capacity of a substance or product to remain within the established specification of identity, strength, quality and purity in a specified period. We received a good response from the audience. A total of 100 delegates attended the webinar and gave excellent feedback. The webinar was concluded by Dr. K Gowthamarajan with a vote of thanks. At the end of the session, a panel discussion on the stability guidelines of medicines in the space environment was made. Since, no such guidelines are available from drug regulators in India, the panel members have decided to

draft the Guidelines for the Stability of